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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,527	11/21/2005	Hajrudin Ceric	2003P00701WOUS	2004

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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3745

MAIL DATE	DELIVERY MODE
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10/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/557,527

Applicant(s)

CERIC ET AL.

Examiner

Christopher Verdier

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11-21-05</u> . | 6) <input type="checkbox"/> Other: ____. |

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Receipt and entry of Applicant's Preliminary Amendment dated November 21, 2005 is acknowledged. The Substitute Specification dated November 21, 2005 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the restrictor(s) (claims 11-20) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "26" and "27".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because it contains the phrase "The invention relates to" (line 1) which is implied and should be deleted, and because line 1 contains the legal term "Said", which should be changed to -- The --. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: Appropriate correction is required.

In paragraph 1, line 3, "applications" should be changed to -- application --.

In paragraph 10, line 7, -- the -- should be inserted after "between".

In paragraph 12, line 2, -- the -- should be inserted after "between".

In paragraph 13, line 2, -- the -- should be inserted after "between".

In paragraph 18, the third to last line, -- a -- should be inserted after "as".

In paragraph 18, the second to last line, -- a -- should be inserted after "as".

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 12, 14-15, and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 12, line 2, "without a line being interposed" is incomplete and unclear. In claims 14 and 15, line 1, there is no antecedent basis for there being plural piston chambers. In claim 20, line 3, "the rotor" lacks antecedent basis. In claim 19, last line, "interposed" is incomplete and unclear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-18 and 20 (as far as claims 12, 14-15, and 20 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent 39 26 556. Disclosed is a bearing 10 for axially mounting a rotor 2 of a gas turbine, comprising a rotationally fixed bearing body 12/14 that has a hydraulic piston arrangement 16 for axially displacing the rotor from a first operating position into a second operating position, and a hydraulic system (unnumbered, connected at 44 to a source of oil pressure) fluidically connected to the hydraulic piston arrangement, wherein to limit the displacement speed of the rotor, restrictors 40 arranged in the bearing body and intended for the hydraulic medium are provided between the hydraulic piston arrangement and the hydraulic system. The restrictors are formed by flow constrictions

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arranged in the bearing body without a line being interposed between the flow restrictors and the pistons. The hydraulic piston arrangement has a plurality of pistons 28 arranged in corresponding respective piston chambers 32. The piston chambers are bores of cylindrical design and are fluidically connected to one another via ring channel 44. The hydraulic piston arrangement is of annular design. Two hydraulic piston arrangements formed separately from one another are provided and are arranged opposite one another (adjacent one another) on the bearing body. The two hydraulic piston arrangements are fluidically connected to one another. The recitation in claim 11, line 1 of “for axially mounting a rotor of a gas turbine” and the recitation in claim 11, lines 2-3 of “for axially displacing the rotor from a first operating position into a second operating position” are recitations of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The recitation in claim 20, line 1 of “A gas turbine having a bearing” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claims 11-12, 16-18, and 20 (as far as claims 12 and 20 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Swearingen 3,828,610 (figure 1).

Disclosed is a bearing for axially mounting a rotor 11 of a gas turbine, comprising a rotationally fixed bearing body 12/13 that has a hydraulic piston arrangement 24, 25 for axially displacing the rotor from a first operating position into a second operating position, and a hydraulic system 18, 19, 16, 17 fluidically connected to the hydraulic piston arrangement, wherein to limit the displacement speed of the rotor, restrictors 12b, 13b arranged in the bearing body and intended for the hydraulic medium are provided between the hydraulic piston arrangement and the hydraulic system. The restrictors are formed by flow constrictions arranged in the bearing body without a line being interposed between the flow restrictors and the pistons. The hydraulic piston arrangement is of annular design. Two hydraulic piston arrangements formed separately from one another are provided and are arranged opposite one another on the bearing body. The two hydraulic piston arrangements are fluidically connected to one another. The recitation in claim 11, line 1 of "for axially mounting a rotor of a gas turbine" and the recitation in claim 11, lines 2-3 of "for axially displacing the rotor from a first operating position into a second operating position" are recitations of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The recitation in claim 20, line 1 of "A gas turbine having a bearing" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the

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body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 19, as far it is definite and understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Arvidsson 4,915,510 in view of German Patent 39 26 556. Arvidsson discloses a bearing for axially mounting a rotor 1 of a gas turbine, comprising a rotationally fixed bearing

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body 12, 13 that has a hydraulic piston arrangement 2, 3 axially displacing the rotor from a first operating position into a second operating position, and a hydraulic system 4-9 fluidically connected to the hydraulic piston arrangement, with two hydraulic piston arrangements 2, 3 that are fluidically connected to one another with a directional control valve 8.

However, Arvidsson does not disclose that to limit the displacement speed of the rotor, at least one restrictor arranged in the bearing body and intended for the hydraulic medium is provided between the hydraulic piston arrangement and the hydraulic system, and does not disclose that the directional control valve is a 4/2-way directional control valve.

German Patent 39 26 556 shows a bearing 10 for axially mounting a rotor 2 of a gas turbine, comprising a rotationally fixed bearing body 12/14 that has a hydraulic piston arrangement 16 for axially displacing the rotor from a first operating position into a second operating position, and a hydraulic system (unnumbered, connected at 44 to a source of oil pressure) fluidically connected to the hydraulic piston arrangement, wherein to limit the displacement speed of the rotor, restrictors 40 arranged in the bearing body and intended for the hydraulic medium are provided between the hydraulic piston arrangement and the hydraulic system.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the bearing body of Arvidsson with at least one restrictor arranged in the bearing body and intended for the hydraulic medium provided between the

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hydraulic piston arrangement and the hydraulic system, as taught by German Patent 39 26 556, for the purpose of limiting the displacement speed of the rotor.

With regard to the recitation of the directional control valve being a 4/2-way directional control valve, Official Notice is taken that 4/2-way directional control valves are well-known in the art of hydraulic systems, for the purpose of providing communication between two fluid motors (pistons). It would have been further obvious at the time the invention was made to a person having ordinary skill in the art to form the modified bearing body of Arvidsson such that the directional control valve is a 4/2-way directional control valve, or the purpose of providing communication between the two fluid pistons.

The recitation in claim 19, line 1 of “for axially mounting a rotor of a gas turbine” and the recitation in claim 19, lines 2-3 of “for axially displacing the rotor from a first operating position into a second operating position” are recitations of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Baumann, Block, and Arvidsson '447 are cited to show various shaft thrust bearing arrangements.

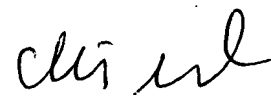
Lindeboom is cited to show a thrust bearing with a flow restriction 16.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.V.
October 12, 2007


Christopher Verdier
Primary Examiner
Art Unit 3745